Chromatographia Vol. 18, 1984 Contents

Vol. 18, No. 1, 1984

Editorial 3

Originals

Design and Application of a Post-Column Extraction System Compatible with Miniaturized Liquid Chromatography 5
J. A. Apffel/U. A. Th. Brinkman/R. W. Frei

The Preparation of Analytically Stable, Immobilized Stationary Phase Coatings on Column Packing Materials 11
L. Ghaoui/H. Shanfield/A. Zlatkis

Ion Pair Chromatography: A New Approach to Dynamic Equilibrium 15
M. Dreux/M. Lafosse/P. Agbo-Hazoume

Lipophilicity Determination of some 3,5-Dinitro-Benzoic-Acid Esters on Unimpregnated Cellulose Layer 18
T. Cserháti

Gas-Liquid Chromatography of Isopropylidene-Glucose and Glucose as their Trimethylsilyl Derivatives 21
R. Novina

Calibration in TLC/HPTLC using the Michaelis-Menten Function 23
S. Ebel/D. Alert/U. Schaefer

Gas Chromatographic-Spectrometric Identification of Some Polycyclic Nitrogen-Containing Compounds in Coal Tar 28
V. P. Dmitrikov/Yu. V. Fedorov/V. M. Nabivach

Coupling of Chromatography and NMR
Part 5: Analysis of High-Boiling Gas-Chromatographic Fractions by On-Line Nuclear Magnetic Resonance 31
H. Herzog/J. Buddrus

Optimization of the Extraction Conditions of Amino Acid Dabsyl Derivatives 33
T. Wolski/W. Gołkiewicz/G. Bartuzi

Role of the Solvent in Thin-Layer Chromatography of Steroids on Alumina 37
S. M. Petrović/L. A. Kolarov/J. A. Petrović

Changes of the Affinity Between Fungal Proteins and Vanillin Bonded to Thermally Modified Porous Glass Support 41
A. L. Dawidowicz/J. Łobarzewski

Short Communication

Correlation of the Retention Data of Polyaromatic Hydrocarbons Obtained on Various Stationary Phases Used in Normal- and Reversed-Phase Liquid Chromatography 44
K. Jinno/K. Kawasaki

Report 46

Letters to the Editor 47

Book Review 48

Note to Authors 49

Announcements 51

New Products 57

Vol. 18, No. 2, 1984

Editorial 61

Originals

High-Speed Assay of Amino Acids Using Reversed-Phase Liquid Chromatography 62
S. J. Price/T. Palmer/M. Griffin

Separation of Ortho-Substituted Tetraphenylporphyrins by Preparative HPLC 65
E. Bayer/H.-P. Seelmann-Eggebert

Chromatography of Proteins and Viruses on Macroporous Silica Modified with Carbohydrates 69
A. V. Kiselev/T. D. Khokhlova/Yu. S. Nikitin

Packing and Performance of Microbore Columns for Adsorption and Partition Chromatography 73
H. Menet/P. Gareil/M. Caude/R. Rosset

A Simple Test to Characterise C8/C18-Bonded Phases, Particularly for Toxicological Screening 81
T. Daldrup/B. Kardel

The Evaluation of "Reversed Phase" High-Performance Liquid Chromatography Packing Materials 84
M. Verzele/C. Dewaele

Rapid Analysis of Opium Alkaloids by Ion-Pair High-Performance Liquid Chromatography 87
S. Galewsky/C. L. Nessler

Retention Prediction of Substituted Benzenes in Reversed-Phase HPLC 90
K. Jinno/K. Kawasaki

Determination of the Structure of Glycolaldehyde and Glyceraldehyde as their Trimethylsilyl Derivatives by Gas Chromatography and Mass Spectrometry 96
R. Novina

Structural Effects and Retention in Reversed-Phase Ion-Pair Chromatography of 2-Benzoylbenzoic Acid Derivatives 99
M. Bieganowska/E. Soczewiński/M. Janowska

The Correlation Between Molecular Polarizability of PAHs and their Retention Data on Various Stationary Phases in Reversed-Phase HPLC 103
K. Jinno/K. Kawasaki

Announcements 106

New Products 106

Note to Authors 107

Vol. 18, No. 3, 1984

Originals

Preparative LC Separation and Isolation on Enantiomerically Pure Olefins 119
J. Köhler/A. Deege/G. Schomburg

Determination of Hydrazine and 1,1-Dimethylhydrazine as Salicylaldehyde Derivates by Liquid Chromatography With Electrochemical Detection 125
P. E. Kester/N. D. Danielson

Optimization of a Peroxyoxalate Chemiluminescence Detection System for the Liquid Chromatographic Determination of Fluorescent Compounds 129
G. J. de Jong/N. Lammers/F. J. Spruit/U. A. Th. Brinkman/R. W. Frei

Characteristics of the Activity Coefficients in Binary Solutions on Chromatographic Paper 134
T. Kowalska

Air-Sampling of Aldehydes – Application to Chromatographic Determination of Formaldehyde and Acetaldehyde 137
J. P. Guenier/P. Simon/J. Delcourt/M. F. Didierjean/C. Lefevre/J. Muller

Solvent Selection in Liquid-Solid Chromatography of Steroids 145
S. M. Petrović/Lj. A. Kolarov/J. A. Petrović

Thin-Layer Chromatography of 1,2,4-Triazoles on Silica Gel 149
J. Thomas

Isolation Methods for the Volatile Components of Grapefruit Juice. Distillation and Solvent Extraction Methods 153
A. J. Núñez/J. M. H. Bemelmans/H. Maarse

Book Reviews 158

Note to Authors 159

Announcements 161

New Products 162

Vol. 18, No. 4, 1984

Originals

Implications of On-Line FTIR Detection in the Separation of Coal-Derived Products Via HPLC with Polar Modifiers 175
P. G. Amateis/L. T. Taylor

Molecular Structure and Retention Behaviour of Some Polycyclic Aromatic and Perhydroaromatic Hydrocarbons on Graphitized Carbon Black 183
A. V. Kiselev/V. I. Nazarova/K. D. Shcherbakova

Synthèse, séparation et identification par chromatographie gazeuse sur colonne capillaire d'hydrocarbures polycycliques aromatiques 190
Ph. Cléon/M. C. Fouchères/D. Cagniant

Co-Injections to Avoid Peak Distortion Due to Partial Solvent Trapping in Capillary Gas Chromatography (GC) 197
K. Grob Jr./M.-L. Riekkola

Interactions of Some Polar Compounds with Methylsilicone Liquid Phases in Gas Chromatography 202
J. Masłowska/K. Nowicka

Investigation of Interaction of Olefin-Bonded Transition Metal Complexes by Gas Chromatography. Diphenylphosphine Complexes with $CoCl_2$ and $CoBr_2$ 205
W. Wasiak/W. Szczepaniak

Microcomputer-Assisted Retention Prediction System in Reversed-Phase HPLC 211
K. Jinno/K. Kawasaki

The Synthesis and Characterization of Aliphatic Sulfonic Acid Cation Exchangers for HPLC 216
S. D. Fazio/J. B. Crowther/R. A. Hartwick

Letters to the Editors 220

Announcements 222

Book Review 222

New Products 224

VOL.
18
1984

Vol. 18, No. 5, 1984

Editorial 233

Originals

On-Column Injection in the Stopped-Flow Mode with Open-Tubular Columns 234
F. Pacholec/C. F. Poole

High-Efficiency Microcolumn Separation of Polycyclic Arene Isomers Isolated from Carbon Black 239
A. Hirose/D. Wiesler/M. Novotny

Viscosity of Gases Used as the Mobile Phase in Gas Chromatography 243
L. S. Ettre

Correlations in Continuous Development Thin-Layer Chromatography 249
R. E. Tecklenburg, Jr./D. Nurok

Therapeutic Drug Monitoring by High Performance Thin-Layer Chromatography 253
G. Malikin/St. Lam/A. Karmen

Gas Chromatographic Determination of Parabens in Various Pharmaceutical Dosage Forms 260
F. De Croo/J. De Schutter/W. Van den Bossche/P. De Moerloose

Immobilization of Stationary Liquids on Silica Particles by γ-Radiation 265
G. Schomburg/J. Köhler/H. Figge/A. Deege/U. Bien-Vogelsang

1984 Tswett Chromatography Medals 275

New Products 276

Vol. 18, No. 6, 1984

Originals

Resolution of Sulphur-Containing Amino Acids by Chiral Phase Gas Chromatography 287
E. Küsters/H. Allgaier/G. Jung/E. Bayer

Resolution and Assignment of the Configuration of Secondary Aliphatic Alcohols by Gas Chromatography on Chiral Phase 294
S. Binet/J. Dreux/R. Longeray

Gas Chromatography – Mass Spectrometry of the Stereoisomers of Perhydroanthracene and Perhydrophenanthrene 297
A. V. Kiselev/N. S. Kulikov/G. Curthoys

Simultaneous GLC Determination of Fenitrothion, Aminocarb and Their Corresponding Hydrolysis Products in Water 305
A. Cassista/V. N. Mallet

Analysis of Carboxylic Acids by Gas Chromatography. Derivatisation Using Chloroacetone 309
D. V. McCalley/C. W. Thomas/L. L. Leveson

Trace Analysis by Intermediate Trapping with a Modified Programmable Temperature Vaporizer 313
S. Nitz/F. Drawert/E. Jülich

Determination of the Lipophilicity of Some Aniline Derivatives by Reversed-Phase Thin-Layer Chromatography. The Effect of the Organic Phase in the Eluent 318
T. Cserháti

Determination of Chlorophenols in Waste Water Using C_{18} Reserve-Phase Enrichment Prior to High Resolution Gaschromatography – Mass Spectrometry 323
P. G. Nielsen

Short Communication

Construction of Small Data Base for Liquid Chromatography 326
K. Jinno/H. Noda

Book Review 329

Announcements 330

Erratum 341

New Products 342

Vol. 19, No. 7, 1984

Editorial 351

Originals

Mobile Phase Effects in Reversed-Phase Chromatography VI. Thermodynamic Models for Retention and its Dependence on Mobile Phase Composition and Temperature 353
W. R. Melander/Cs. Horváth

Deactivation of Small-Diameter Fused-Silica Capillary Columns for Gas and Supercritical Fluid Chromatography 362
R. C. Kong/C. L. Woolley/S. M. Fields/M. L. Lee

Open Tubular Columns: The Influence of Changing the Liquid Phase Film Thickness on Column Efficiency 367
P. Benedek/L. Józsa/L. S. Ettre

Equilibria Effects in the Dynamic Ion-Exchange Separation of Metal Ions 369
R. M. Cassidy/Marie Fraser

The Peak Width of Nearly Gaussian Peaks 374
R. Delley

Determination of Anions by Non-Suppressed Ion Chromatography Using an Amine Column 383
G. Domazetis

Derivatization of 2-Hydroxylalkanoic Acids for Gas Chromatographic Enantiomer Separation 387
C. Wang/H. Frank/E. Bayer/P. Lu

Influence of the Thermal Modification of Controlled Porosity Glass on the Affinity Chromatography of Fungal Proteins 389
A. L. Dawidowicz/J. Łobarzewski

Linearity of a Flame Ionisation Detector for Capillary Gas Chromatography 393
J. L. Marshall/B. Crowe

Detectability of Phenols and Amines by Normal Phase Microbore HPLC-FTIR Employing Highly IR Transparent Solvents 396
R. S. Brown/P. G. Amateis/L. T. Taylor

Linear Free Energy Relationship in Thin Layer Chromatography of 5-Arylidenebarbiturates 401
J. L. Mokrosz/L. Ekiert

Announcements 405

New Products 407

Erratum 413

Vol. 18, No. 8, 1984

Originals

A Comparison of Some Electronic Filters for Use in Noise Suppression Circuitry of HPLC Detectors 417
P. R. Haddad/G. K.-C. Low/A. L. Heckenberg

Determination of Thiamine and Thiamine Phosphates as Thiochrome Derivatives by Reversed-Phase Chromatography on Polystyrene Packing Materials 424
J. Bontemps/L. Bettendorff/J. Lombet/G. Dandrifosse/E. Schoffeniels/F. Nevejans/Y. Yang/M. Verzele

Elution Curves and Statistical Moments in Non-Ideal, Linear Chromatography 427
J. Å. Jönsson

Assay of the Nerve Agent Soman in Serum by Capillary Gas Chromatography with Nitrogen-Phosphorus Detection and Splitless Injection 433
H. C. De Bisschop/E. Michiels

Microcolumn Liquid Chromatography With Inductively-Coupled Plasma Atomic Emission Spectronometric Detection 437
K. Jinno/S. Nakanishi/T. Nagoshi

High-Performance Thin-Layer Chromatography of Metal Complexes of *meso*-Tetrakis (ρ-tolyl)porphyrin on Cellulose and Silica Gel 441
M. Kobayashi/K. Saitoh/N. Suzuki

HPLC-Analyses of Plant Biomass Hydrolysis and Fermentation Solutions 445
G. Bonn/O. Bobleter

A Thermodynamic Criterion for the Identification of the Functional Group of Aliphatic Compounds by Gas Chromatography 449
R. V. Golovnya/D. N. Grigoryeva

Chromatographic Retention Data of N-Alkylamides of Benzomorpholine-2-Carboxylic Acid in the Study of Structure-Activity Relationships 456
Maria Bieganowska

Short Communication

High-Performance Liquid Chromatographic Resolution of Enantiomers on Chiral Amine-Bonded Silica Gel 459
M. Sinibaldi/V. Carunchio/C. Corradini/A. M. Girelli

Book Review 461

Announcements 462

New Products 466

Vol. 19, No. 9, 1984

Editorial 475

Originals

Performance of Open Tubular Columns as a Function of Tube Diameter and Liquid Phase Film Thickness 477
L. S. Ettre

Development of Capillary Supercritical Fluid Chromatography/Fourier Transform Infrared Spectrometry 489
S. V. Olesik/S. B. French/M. Novotny

Molecular-Shape Recognition of Polycyclic Aromatic Hydrocarbons in Reversed Phase Liquid Chromatography 495
K. Jinno/M. Okamoto

Effect of the Chain Length of Chemically Bonded Phases on the Retention of Substituted Benzene Derivatives in Reversed-Phase Liquid Chromatography 499
K. Jinno/K. Kawasaki

Clarification of the Limit of Detection in Chromatography 503
J. P. Foley/J. G. Dorsey

Reversed-Phase, Thin-Layer Chromatography of 2-substituted Benzoic Acids with Ammonium Compounds as Ion-Pair Reagents 512
W. Jost/H. E. Hauck/H. Herbert

Glass Wool in the Injector Insert of Quantitative Analysis in Splitless Injection 517
K. Grob Jr./H. P. Neukom

Free Release Static Coating of Glass Capillary Columns; Static Coating at Elevated Pressure: Theoretical Considerations and Practice 520
Xu Bingjiu/N. P. E. Vermeulen

High-Speed Analysis of Dansyl Derivatives of Polyamines 525
J. Bontemps/A. Etienne/M. Kadri/J.-L. van Cutsem/G. Dandrifosse/P.-Ph. Forget

Book Reviews 528

Announcements 528

New Products 529

VOL. 18 1984

Vol. 18, No. 10, 1984

Editorials

R. L. M. Synge – 70th Birthday 539

A. V. Kiselev 1908–1984 541

Originals

Application of Capillary Supercritical Fluid Chromatography to the Analysis of a Middle Distillate Fuel 542
B. W. Wright/R. D. Smith

Thin-Layer Chromatographic Determination of Curcumine (Turmeric) in Spices 546
A. Janßen/Th. Gole

Studies on Separation Mechanisms of Biological Molecules on a Polyvinyl Alcohol Column 550
H. Wada

Chromatographic Determination of Tetramethrin on Woolen Cloth and in Aqueous Treatment Formulations 556
R. A. Simonaitis/R. S. Cail

Capillary GLC Controls of Some Alpine Artemisiae and of the Related Liqueurs 560
C. Bicchi/A. D'Amato/G. M. Nano/C. Frattini

Continuous Chromatographic Separation of Glucose-Fructose Mixtures Using Anion-Exchange Resins 567
P. E. Barker/G. A. Irlam/E. K. E. Abusabah

Microbore Columns in Quantitative Column Liquid Chromatography 574
J. H. M. van den Berg/H. W. M. Horsels/R. J. M. Groenen

Adsorption Effects in Gel Permeation Chromatography: The Application of Binary Mobile Phases 579
A. L. Dawidowicz/S. Sokolowski

American Chemical Society Award 587

Announcements 588

New Products 589

The Role of Electric Interactions in the Retention Index Concept; Implications in Quantitative Structure-Retention Studies 615
H. Lamparczyk/A. Radecki

Chromatographic Analysis of Binary Mixtures of Isomeric Complexes 618
R. K. Upadhyay/A. K. Bajpai/K. Rathore

High-Performance Gas Chromatography of 1,4-Naphthoquinones from *Droseraceae* 621
M. Bonnet/M. Coumans/M. Hofinger/J. L. Ramaut/Th. Gaspar

Mass Overload in Liquid Chromatography, Experimental Validity of the Haarhoff-Van der Linde Treatment 623
G. Cretier/J. L. Rocca

Processes Dominating Forced-Flow Thin-Layer Chromatography 628
H. Kalász

Liquid Chromatography of Isomers of Aromatic Acids on Microbore Column Packed with Anion-Exchange Resin 633
K. P. Naikwadi/S. Rokushika/H. Hatano

Esterification of C_2-C_{16} Dicarboxylic Acids to n-Butyl Esters in Aqueous Solutions for Their Gas Chromatographic Analysis 637
I. Molnár-Perl/V. Fábián-Vonsik/M. Pintér-Szakács

Short Communication

Free-Release Static Coating of Glass Capillary Columns: Coating with Medium Polar and Polar Stationary Phases 642
Xu Bingjiu/N. P. E. Vermeulen

The 1984 Martin Awards 645

The 1984 Jubilee Medal 646

Book Reviews 647

Announcements 653

New Products 659

Vol. 18, No. 11, 1984

Editorial 599

Originals

High-Performance Liquid Chromatography of Sugars on Copper(II) Modified Silica Gel 600
J. L. Leonard/F. Guyon/P. Fabiani

Chromatographic Chemical Characterization of Solvent Refined Coal I and II Liquids for Toxicological Testing 603
C. W. Wright/W. C. Weimer/D. L. Springer

Irreversible and Reversible Phase Transitions of Alkyl Monolayers. Gas Chromatographic Evidence of Polar Solvent Influence on the Adsorbing Properties of the Layer 611
D. Morel/J. Serpinet/G. Untz

Vol. 18, No. 12, 1984

Originals

Solubilities and Partial Molar Enthalpies of Solution for Polar Gas-Liquid Systems Determined by Gas Chromatography 663
C. W. Sweeney

Influence of Pressure on Sorption Equilibrium: HPLC Column Packing – Mixed Eluent 668
M. Chalányová/T. Macko/J. Kandráč/D. Berek

Gas Chromatographic Analysis of Aromatic Carboxylic Acids in the Presence of C_1–C_5 Fatty Acids and C_2–C_7 Dicarboxylic Acids Esterified in Aqueous Solutions as the n-Butyl Esters 673
I. Molnár-Perl/V. Fábián-Vonsik/M. Pintér-Szakács

Effect of Stationary Phase Properties and Solute Molecular Size on Retention of PAHs in Reversed-Phase Liquid Chromatography 677
K. Jinno/M. Okamoto

Simplified Determination of the Normal Paraffin Content of Petroleum Fractions 679
B. T. Hine

Retention Behaviour and Molecular Structure of the Solute in Thin-Layer Chromatography 683
S. M. Petrović/E. Lončar/Lj. Kolarov

Chromatography of Inorganic Ions on Sulfoethyl Cellulose Layer in Mixed Sulfuric Acid-Organic Solvent Media 692
T. Shimizu/K. Tadokoro/A. Suganuma/M. Hirose

An Investigation into the Use of Semi-Microbore Reverse-Phase 3 μm Columns in HPLC 695
G. D. Reed/C. R. Loscombe

Gas Chromatographic Enantiomer Separation of Chiral Ketones – Order of Elution and Configurational Stability of Oxime Derivatives 698
W. A. König/E. Schmidt/R. Krebber

Quantitative Determination of Trace Amounts of L-alanine in Triglycine Sulphate Crystals by HPLC 701
W. Golkiewicz/T. Wolski/G. Bartuzi/T. Jasiński/J. Stankowska

Separation of Chlorophenols on a Cation-Exchanger in Ce(III) Form 704
J. Masłowska/W. Piętek

Book Reviews 707

Announcements 708

New Products 713

VOL.
18
1984

Chromatographia Vol. 18, 1984 Author Index

Abusabah, E. K. E. 567
Adlard, E. R. 222
Agbo-Hazoume, P. 15
Ahuja, S. 648
Alert, D. 23
Allgaier, H. 287
Amateis, P. G. 175, 396
Angelé, H. P. 222
Apffel, J. A. 5

Baerheim Svendsen, A. 158
Bajpai, A. K. 618
Barker, P. E. 567
Bartuzi, G. 33, 701
Bayer, E. 65, 287, 387
Bemelmans, J. M. H. 153
Benedek, P. 367
Berek, D. 668
Bettendorff, L. 424
Bicchi, C. 560
Bieganowska, M. 99, 456
Bien-Vogelsang, U. 265
Binet, S. 294
Bobleter, O. 445
Bonn, G. 445
Bonnet, M. 621
Bontemps, J. 424, 525
Brinkman, U. A. Th. 5, 129
Brown, R. S. 396
Buddrus, J. 31

Cagniant, D. 190
Cail, R. S. 556
Carunchio, V. 459
Cassidy, R. M. 369
Cassista, A. 305
Caude, M. 73
Chalányová, M. 668
Cléon, Ph. 190
Corradini, C. 459
Coumans, M. 621
Cretier, G. 623
Crowe, B. 393
Crowther, J. B. 216
Cserháti, T. 18, 318
Curthoys, G. 297

D'Amato, A. 560
Daldrup, T. 81
Dandrifosse, G. 424, 525
Danielson, N. D. 125
Dawidowicz, A. L. 41, 389, 579
DeBisschop, H. C. 433
De Croo, F. 260
Deege, A. 119, 265
De Jong, G. J. 129
Delcourt, J. 137
Delley, R. 374
De Moerloose, P. 260
De Schutter, J. 260
Dewaele, C. 84
Didierjean, M. F. 137
Dmitrikov, V. P. 28
Domazetis, G. 383
Dorsey, J. G. 503
Drawert, F. 313
Dreux, J. 294
Dreux, M. 15

Ebel, S. 23
Ekiert, L. 401
Engelhardt, H. 158
Etienne, A. 525
Ettre, L. S. 243, 367, 477

Fabiani, P. 600
Fábián-Vonsik, V. 637, 673
Fazio, S. D. 216
Fedorov, Yu. V. 28
Fields, S. M. 362
Figge, H. 265
Foley, J. P. 503
Forget, P.-Ph. 525
Formáček, V. 48
Fouchères, M. C. 190
Frank, H. 387
Fraser, M. 369
Frattini, C. 560
Frei, R. W. 5, 129
French, S. B. 489
Frigerio, A. 647

Galewsky, S. 87
Gareil, P. 73
Gaspar, Th. 621
Ghaoui, L. 11
Girelli, A. M. 459
Glöckner, G. 158
Gole, Th. 546
Golkiewicz, W. 33, 701
Golovnya, R. V. 449
Görög, S. 647
Griffin, M. 62
Grigoryeva, D. N. 449
Grob, K. Jr. 197, 517
Groenen, R. J. M. 574
Guenier, J. P. 137
Guyon, F. 600

Haddad, P. R. 417
Halliday, D. A. 528
Hartwick, R. A. 216
Hatano, H. 633
Hauck, H. E. 512
Heckenberg, A. L. 417
Herbert, H. 512
Herzog, H. 31
Hine, B. T. 679
Hirose, A. 239
Hirose, M. 692
Hofinger, M. 621
Horsels, H. W. M. 574
Horváth, Cs. 353
Huddleston, P. R. 48, 647

Irlam, G. A. 567

Jack, D. B. 158, 461, 647, 707
Janowska, M. 99
Janssen, A. 546
Jasínski, T. 701
Jennings, W. G. 707
Jinno, K. 44, 90, 103, 211, 326, 437, 495, 499, 677
Jönsson, J. Å. 427
Jost, W. 512
Józsa, L. 367
Jülich, E. 313
Jung, G. 287

Kadri, M. 525
Kalász, H. 628
Kandráč, J. 668
Kardel, B. 81
Karmen, A. 253
Kawasaki, K. 44, 90, 103, 211, 499
Kester, P. E. 125
Khokhlova, T. D. 69
Kiselev, A. V. 69, 183, 297
Kobarzewski, J. 41
Kobayashi, M. 441
Köhler, J. 119, 265
Kolarov, Lj. 37, 145, 683
Kong, R. C. 362
König, W. A. 698
Kowalska, T. 134
Krebber, R. 698
Kubeczka, K.-H. 48
Kucera, P. 647
Kulikov, N. S. 297
Küsters, E. 287

Lafosse, M. 15
Lam, St. 253
Lammers, N. 129
Lamparczyk, H. 615
Lee, M. L. 362
Lefevre, C. 137
Leonard, J. L. 600
Leveson, L. L. 309
Łobarzewski, J. 389
Lombet, J. 424
Longeray, R. 294
Loscombe, C. R. 695
Loučar, E. 683
Low, G. K.-C. 417
Lu, P. 387

Maarse, H. 153
Macko, T. 668
Malikin, G. 253
Mallet, V. N. 305
Marshall, J. I. 393
Masłowska, J. 202, 704
McCalley, D. V. 309
Melander, W. R. 353
Menet, H. 73
Michiels, E. 433
Mikusinski, J. 329
Milon, H. 647
Mokrosz, J. L. 401
Molnár-Perl, I. 637, 673
Morel, D. 611
Muller, J. 137

Nabivech, V. M. 28
Nagoshi, T. 437
Naikwadi, K. P. 633
Nakanishi, S. 437
Nano, G. M. 560
Nazarova, V. I. 183
Nessler, C. L. 87
Neukom, H. P. 517
Nevejans, F. 424
Nielsen, P. G. 323
Nikitin, Yu. S. 69
Nitz, S. 313
Noda, H. 326
Novina, R. 21, 96
Novotny, M. 239, 489
Nowicka, K. 202
Núñez, A. J. 153
Nurok, D. 249

Okamoto, M. 495, 677
Olesik, S. V. 489

Pacholec, F. 234
Palmer, T. 62
Petrović, J. A. 37, 145
Petrović, S. M. 37, 145, 683
Pietek, W. 704
Pintér-Szakács, M. 637, 673
Poole, C. F. 234
Price, S. J. 62

Radecki, A. 615
Ramaut, J. L. 621
Rapp, A. 707
Rathore, K. 618
Reed, G. D. 695
Riekkola, M.-L. 197
Rocca, J. L. 623
Rokushika, S. 633
Rosset, R. 73

Saitoh, K. 441
Schaefer, U. 23
Schmidt, E. 698
Schoffeniels, E. 424
Schomburg, G. 119, 265
Schreier, P. 707
Seelmann-Eggebert, H. P. 65
Serpinet, J. 611
Sewell, P. A. 648
Shanfield, H. 11
Shcherbakova, K. D. 183
Shimizu, T. 692
Simon, P. 137
Simonaitis, R. A. 556
Sinibaldi, M. 459
Smith, R. D. 542
Soczewiński, E. 99
Sokolowski, S. 579
Springer, D. L. 603
Spruit, F. J. 129
Stankowska, J. 701

Stock, R. 528, 648, 707
Suzanuma, A. 692
Suzuki, N. 441
Sweeney, C. W. 663
Szczepaniak, W. 205

Tadokoro, K. 692
Taylor, L. T. 175, 396
Tecklenburg, Jr. R. E. 249
Thomas, C. W. 309
Thomas, J. 149

Untz, G. 611
Upadhyay, R. K. 618

van Cutsem, J.-L. 525
van den Berg, J. H. M. 574
van den Bossche, W. 260
Vermeulen, N. P. E. 520, 642
Verpoorte, R. 158
Verzele, M. 84

Wada, H. 550
Wagman, G. H. 461
Wang, C. 387
Wasiak, W. 205
Weimer, W. C. 603
Weinstein, M. J. 461
Wiesler, D. 239
Wolski, T. 33, 701
Woolley, C. L. 362
Woolley, R. G. 329
Wright, B. W. 542
Wright, C. W. 603

Xu, B. 520, 642

Yang, Y. 424

Zlatkis, A. 11

VOL. 18 1984

Chromatographia Vol. 18, 1984 Subject Index

Activity coefficients in binary solutions 134
Adsorption, at gas-liquid interface 663
Affinity chromatography 41, 389
– –, of fungal proteins 389
Air, analysis of 11
– pollution 137
L-alanine, in triglycine sulphate 701
Aldehydes, air sampling of 137
–, LC and GC of 137
Aliphatic cation-exchangers, characterisation of 216
– – –, synthesis of 216
Alkaline mobile phase 424
Alumina, for LC 47
–, impregnated 18
–, modifications of 47
–, surface modifications of 48
– thin layers 37
Amine column, for ion-chromatography 383
Amines, detectability of 396
Amino acid dabsyl derivatives 33
Amino acids, derivatisation of 62, 287
– –, LC of 62
– –, pentafluoropropionyl derivatives of 287
– –, S-containing by chiral GC 287
Amino-bonded stationary phase 445
Ammonium compounds, as ion-pair reagents 512
Analysis of liqueurs 560
Anion-exchangers, in continuous chromatography 567
Anionic surfactant 15
Anions, determination of 383
Anti-cancer drugs 5
Arenes from carbon black, LC of 239
Aromatic acids, n-butyl esters 673
Atomic emission detection, in LC 437

Backflushing, in LC 668
Benzoic acids, TLC of 512
– –, R_f of 513
Benzomorpholine-2-carboxylic acids 456
2-Benzoylbenzoic acid derivatives, LC of 99
Biomass 445
Blood serum 253
Bonded phases 353
– –, for LC screening 81
n-Butyl esters 673

Calibration, in TLC 23
Capacity factors 15
– –, of benzene derivatives 499
Capillary columns 477
– –, comparison of 477
– –, diameters of 477
– –, effect of liquid film 367
– –, film thickness of 477
– –, fused silica 153
– –, performance of 477
– –, wide bore 477
Capillary GC 96, 234, 313, 517, 520, 603
– – -MS 287
– –, on-column injection 234
– –, of Alpine *Artemisiae* 560
– supercritical fluid chromatography 542
Carbon dioxide, as supercritical fluid 542
Carbowax coating for capillaries 642
Carboxylic acids, acetonyl esters of 309
Carrier gas, viscosity of 243
Cation-exchange, in thin layers 692
– –, separation of chlorophenols 704
Cell volume, influence of 131
Cellulose layers, unimpregnated 18
Chain length, effect on retention volume 499
Chemical band narrowing 129
Chemiluminescence detection system 129
Chiral olefins 119
– stationary phase 459
Chirasil-Val, GC chiral stationary phase 287
Chlorocresols, GC of 323
Chlorophenols, in waste water 323
–, separation by cation-exchange 705
Chromatography, of alkaloids 158
–, – antibiotics 461
–, – plant volatiles 707
Citrate eluent, in ion chromatography 383
Coal tar, GC of 28
Coated silica, for air sampling 137
Coating solution, bumping of 520
Co-injections and peak distortion 197
Colorimetric and chromatographic methods, comparison 143
Column efficiency, effect of film thickness 367
– life, in LC 695
– liquid chromatography – see LC
– profiles 427
Configuration of alcohols, by GC 294
Configurational stability, of oxime derivatives 698
Continuous chromatography, of glucose-fructose mixtures 567
– development, in TLC 249
Controlled porosity glass 389
Correlation analysis, in TLC 401
Counter-current chromatographic technique 567
Cross-linking, by γ-irradiation 265

DABS-Cl 701
– -valine 701
Dansyl derivatives, LC of 129
Data base, structure of 326
– collection 326
– handling 680
– retrieval 327
Deactivation, of silica capillaries 362
Decay-diffusion model 376

Desorption oven, for GC 315
Detection, fluorescence 5
– limit, calculation of 503
Detector design, optimum 132
– time constant, in LC 695
Diachoric model, of LC 353, 355
Dicarboxylic acid esters 673
– acids, GC of 673
Diesel particulate matter, analysis of 211
1,1-dimethylhydrazine 125
3,5-Dinitrobenzoic acid esters 18
2,4-dinitrophenylhydrazine silica 137
Dipole moments 615
Docosane films 612
Docosyl bonded silicas 613
Diphenylphosphine complexes of Co 205
– –, bonded to silica 205
Dispersive effect, in LC 103
Displacement model, of LC 356
Distillation, of grapefruit juice volatiles 153
Distribution coefficients 33
DMD-test 81
Drugs, in serum samples 129
Dual retention behaviour, in TLC 683

Eigen zones 668
Electrochemical detection 125
Electronic filters, comparison of 417
– –, for LC detectors 417
Elution curves 427
Enantiomer separation, by GC 387
Enantiomeric olefins, isolation of 119
Enantiomers of amino-acids, resolution of 220
Enantioselective GC 698
Equilibria effects, on ion separations 371
Error propagation 23
Esterification, in aqueous solution 637
Exchange capacity, determination of 217

Fatty acid esters 673
– acids, LC of 552
Fermentable carbohydrates 446
FID linearity, effect of flow rate on 393
–, – of 393
Flame ionisation detector – see FID 393
Flow-rate stability, in LC 574
– – variations 575
Fluorometric analysis 548
Forced flow TLC 628
Fourier transform IR 396, 489
Free-release static coating, of capillaries 520, 642
Fructose-glucose mixtures, continuous separation of 567
FTIR detection, on-line 175
Functional groups, identification of 449
Fungal proteins 41
Fused-silica capillary 542

Gas chromatography – see GC 11
Gas-solid chromatography 28
Gaussian peaks 374
GC, and gas solubilities 663
–, capillary 387, 393, 433
–, electronic parameters in 615
– -IR 28
– -MS 28, 309, 603
– –, of chlorophenols 323
– –, – glycolaldehyde derivatives 96
– –, – PAH hydrogenation products 190
– –, – perhydroanthracene 297
– –, – perhydrophenanthrene 297
GC-NMR 28, 31
–, of aldehydes 137
–, – aliphatics 449
–, – alkanes 603
–, – amino acids 287
–, – aminocarb 305
–, – aromatic acids 673
–, – azafluoranthenes 28
–, – n-butyl esters 637
–, – carboxylic acids 309
–, – chiral secondary aliphatic alcohols 294
–, – chiral ketones 698
–, – chlorophenols 323
–, – dimethylanisole derivatives 209
–, – fenitrothion 305
–, – glucose 21
–, – glycolaldehyde TMS derivatives 96
–, – grapefruit juice volatiles 153
–, – 2-hydroxyalkanoic acids 387
–, – insecticides 305
–, – ketones 209
–, – 1,4-naphthoquinones 621
–, – nitroalkane derivatives 209
–, – PAHs 190
–, – parabens 260
–, – petroleum fractions 679
–, – polar compounds 202
–, – polycyclic aromatics 603
–, – – N-compounds 28
–, – S-alkylthio-cysteines 290
–, – terpenes 31
–, – tetramethrin 556
–, on carborane-siloxane 28
–, – chiral phases 294
–, – (+)-dodecyl(2R, 3R)-tartrate 294
–, – transition metal complexes 205
–, order of elution of enantiomers 698
–, packed column 11
–, preparative 119
–, silica capillary 679
Glass capillaries, coating with polar films 642
– –, static coating of 520
– support, thermally modified 41
– surface, boron enriched 41
– wool, in injector insert 517
– –, silylated 517
Glyceraldehyde, GC of TMS derivative 96
Grapefruit juice volatiles, isolation of 153
Graphitised carbon black 297

Haarhoff-van der Linde model 623
Head-space analysis 561
Heats of adsorption, in GC 202
– – solution, – – 202
Helium, viscosity of 245
Henry's Law 663
Heterocyclic systems, resolution of 151
HETP, of capillaries 477
High-pressure flow cell 489
Hydrazine 125
–, derivatives of 125
Hydrogen, viscosity of 246
Hydrogenation products of PAHs 190
Hydrolysis products, of aminocarb 305
– –, of fenitrothion 305
Hydrophobicity in LC 90

Identification, of PAHs 191
Inductive effect, in LC 103
Injector, on-column for capillary GC 234
Inorganic compounds, data base for 326
Intensified solvent trapping 199

VOL. 18 1984

Interference, in LC analyses 144
Intermediate trap 314
Ion association 554
– chromatography, non-suppressed 383
– -exchange, equilibria effects in 369
– –, separation of cations 369
– -pair chromatography 15
– – –, of 2-benzoyl-benzoic acid derivatives 99
– – chromatography of opium alkaloids 87
– – reagents, in TLC 512
Ionisation potentials 615
IR transparent solvents 396
Irradiation of oligomers 266
Irreversible transitions in monolayers 611
Isomeric resolution, by LC 289
Isopropylidene glucose 21

LC 33
–, data base for 326
–, detectors for 417
–, evaluation of reversed phases 84
–, for toxicological screening 81
– -FTIR 175
–, ion-exchange 437
–, – – – equilibrium effects 369
–, – -pair 15
–, mass overload in 623
–, microbore columns in 73, 396, 574
–, microcolumn 239, 437
–, miniaturised 5
–, mobile phase composition 353
–, – – effects in 353
–, of L-alanine 701
–, – aldehydes 137
–, – alkyl benzenes 211
–, – amino acids 62
–, – anilines 500
–, – bile acid sodium salts 78
–, – coal derived products 175
–, – dansyl derivatives of polyamines 525
–, – fermentation solutions 445
–, – enantiomers 459
–, –. fluorescent compounds 129
–, – gluco oligomers 446
–, – heavy petroleum distillates 73
–, – hydrazine derivatives 125
–, – light petroleum distillates 73
–, – N-alkylamides 456
–, – PAHs 44, 495, 677
–, – phenols 501
–, – plant biomass solutions 445
–, – polycyclic arenes 239
–, – polystyrene oligomers 73
–, – proteins 69
–, – steroids 145
–, – substituted benzenes 90
–, – – benzene derivatives 499
–, – sugars 600
–, – tetraphenyl porphyrins 65
–, – viruses 69
–, on aliphatic sulphonic cation-exchangers 216
–, – alumina 47
–, – anion-exchangers 633
–, – chiral amine-bonded silica 459
–, – controlled porosity glass 41
–, – ion-exchangers 445
–, – macroporous silica 69
–, – polystyrene packings 424
–, – semi-microbore columns 695
–, – silica 44

LC, preparative 65, 119, 623
–, retention prediction in 211
–, reversed phase 353, 499, 611, 677
–, solvent selection in 145
–, temperature effects in 353
–, testing of bonded phases 81
–, with mixed eluents 668
Ligand exchange 119
Linear chromatography, non-ideal 427
– free energy relationships, in TLC 401
Lipophilic character 18
– –, of aniline derivatives 318
Liquid chromatography – see LC
Liquid film, capacity 483
Liquid phase, effect of in capillaries 367
– –, thickness of GC 367
Lypophilicity determination 18

Make-up gas, for FID 393
Mass balance equations 427
– spectra, low energy 297
– spectrometry/spectroscopy – see MS
– transfer, in capillaries 367
Membrane phase separator 5
meso-tetrakis(*p*-tolyl)porphyrin complexes 441
Metal matrix effects 371
7-methyljuglone, in *Droseraceae* 621
Methylsilicone stationary phases in GC 202
Michaelis-Menten function 23
Microbore columns, high speed separation on 73
– –, packing of 73
– –, performance of 73, 576
– LC of aromatic acids 633
– packed columns, in LC 633
Microdistillation techniques 561
Microparticulate packing 62
Microsampling 560
Middle distillate fuel 542
Miniaturized LC 5
Mixed ligand complexes 618
Mixing of solvents, in GC 198
Molecular parameters, in LC 90
– polarisability 615
– –, of PAHs 103
– size, effect on retention 677
– structure and retention 183
Monomeric alkyl films 611
Monophosphate nucleotides, LC of 550
MS, of PAHs 239

1,4-naphthoquinones, from *Droseraceae* 621
N-containing PAHs 542
Nearly Gaussian peaks 374
Nerve agent, assay of 433
Nitrogen-phosphorus detection 433
–, viscosity of 245
NMR, of PAH hydrogenation products 190
Noise filter, response characteristics 419
– suppression, in LC detectors 417
N-phenyl-1,2,4-triazoles, TLC of 149
Nucleotides, LC of 552

Olefins, enantiomerically pure 119
On-column injection, stopped-flow mode 234
Open-tubular columns – see capillary columns
– – – reactors 5
Operational calculus, book review 329
Opium alkaloids, LC of 87
Organic modifiers, effect on retention 633
Organic peroxidation 216

OV-101 21
– -1701 coated capillaries 642

Packed capillary, for LC 239
PAHs, capillary GC of 190
–, four-ring isomers 497
–, LC of 103, 211, 239
–, molecular shape recognition of 495
–, retention on graphitised carbon 183
Paper chromatography 134
– –, of amino acid derivatives 33
– –, – isomeric complexes 618
Parabens, derivatisation of 260
–, in pharmaceuticals 260
–, quantitation of 262
Partial molar enthalpies 663
– solvent trapping, in capillary GC 197
Peak compression technique 525
– distortion 197
– – characteristics 417
– identification 449
– overlap 681
– resolution 481
– shape 374
– width 374
Perhydroaromatic hydrocarbons, retention on graphitised carbon 183
Peptides, LC of 553
Peroxide cross-linking 11
Peroxyoxalate chemiluminescence 129
Petroleum fractions, n-paraffin content of 679
Phase ratio, in capillary columns 478
– saturation 200
– soaking – see phase saturation
Phenols, detectability of 396
Phenyl-bonded silicas 495
(R)-α-phenylethylamide 698
Pheromones 698
Phthalate eluent, in ion chromatography 383
Physico-chemical relationships 615
Plasma, inductively-coupled 437
Platinum complexes 119
Plumbagin, in *Droseraceae* 621
Polar solutions 663
Polybutadienes, γ-cross linking of 265
Polycyclic aromatic hydrocarbons – see PAH
Poly(2,6-dimethyl-p-phenylene oxide) 11
Polymer characterisation, by LC 159
Polyphenyl bonded phase 677
Polysiloxanes, γ-ray cross-linking of 265
Polyvinyl alcohol, size-exclusion packing 550
Porous glasses, in LC 579
– –, support for bio-active ligands 389
– –, thermal modification of 389
Post-column extraction system 5
Prediction of unknown retentions 213
Preferential sorption of eluents 668
Pressure changes, in LC 668
Process solvent study 180
Programmable temperature vaporiser 313
Protein-vanillin affinity 41
Proteins, effect of pH on elution of 69
Purine bases, LC of 551
Pyrimidine bases, LC of 551

Quantitative analysis, on capillary columns 517
– GC 141
– LC 574

Radial compression column 87
Reactors, open-tubular 5
Recycling, in LC 668
Resolution 374
– factors, in LC 424
Retention and carbon number 677
– – molecular structure 688
– behaviour, in size exclusion 550
– data 499
– –, correlation on, in LC 44
– –, of benzene derivatives 499
– –, – N-alkylamides 456
– –, – PAHs 103, 187
– enthalpy 358
– factor, tests of 356
– index 449
– –, effect of electronic interactions 615
– in LC, prediction of 90
– mechanisms, in LC 353
– prediction, microcomputer assisted 211
– thermodynamics of 353
Reversed-phase silicas, synthesis of 266
Reversible phase transitions in monolayers 611
R_F and spectral properties 618
–, dependence on chain length 514
–, – – concentration 514
– values 249
– –, of metal complexes 443
R_m values 33, 37, 318, 401
– –, of metal complexes 444

Salicylaldehyde derivatives, LC of 125
Sample preparation, for GC 707
– stability variables 143
SCOT columns 485
SE-54, immobilised 11
Segmented flow 5
Selectivity 15
Separation mechanisms, in size exclusion 550
Sep-pak C_{18} cartridges 323
Silanol groups, shielding of 265
Silica-based polymer phases, for LC 265
–, bonded phase 369
– capillaries, deactivation of 362
– –, for GC 362
– –, – supercritical fluids 362
–, carbohydrate modified 69
–, characterisation of 267
–, CuII modified 600
–, impregnated 18
–, in TLC 401, 546
–, ion-exchange on 369
–, phenyl bonded 495
– supports, deactivation of 265
– –, for LC 265
Silyl derivatives, of parabens 260
Size-exclusion chromatography 550
– – –, adsorption in 579
– – –, binary mobile phases for 579
Solubilities 663
Solubility, of CO_2 663
–, – COS 663
–, – H_2S 663
– parameter theory 683
Solvent effects, in capillary GC 197
– –, – TLC 150
– extraction, of grapefruit volatiles 153
– refined coal 603
–, role of in TLC 37
– selection, in LC 145
– trapping 197, 433

VOL. 18 1984

Soman, by GC 433
–, in serum 433
Sorption effects, secondary 370
– equilibrium 668
Splitless injection 433
– –, matrix effects in 517
Spot formation, influence of ion-pair reagent 515
Static capillary coating, at high pressure 520
Stationary phase, axial compression of 65
– –, cross-linked 11
– –, effect of in LC 677
– –, evaluation in LC 84
– –, immobilisation of 11, 265
Statistical moments 427
Stopped-flow injection 234
Structural effects, in ion-pair LC 99
Structure-activity relationships 456
Substituted benzenes, retention of 90
Sulfoethyl cellulose thin layers 692
Sulfuric acid – organic solvent media 692
Supercritical fluid chromatography 489, 542
– – –, on alumina 542
– fluids, in capillaries 489
Surface ligands, bonding of 216
Surfaces, – aminopropyltriethoxysilane modified 69
System construction 212
Synthesis, of PAHs 190

Terpenes, GC of 31
Tetramethrin, by LC and GC 556
Tetraphenylporphyrins, preparative LC of 65
Therapeutic drug monitoring, by TLC 253
Thermodynamic criterion, for identification 449
Thermodynamics of retention 187
Thiamine, derivative of 424
– phosphates, derivatives of 424
Thick film capillary columns 367
– liquid-phase films 486
Thin-layer chromatography – see TLC
Thio-amino acids 287
Thiochrome derivatives, of thiamines 424
TLC, calibration in 23
–, continuous development in 249
–, effect of molecular structure in 683
–, – – vapour phase in 628
–, forced flow 628
–, high-performance 99, 253
TLC, of alkaloids 158
–, – aniline derivatives 318
–, – anti-arrhythmic drugs 255
–, – chloramphenicol 255
–, – dyestuffs 628
–, – curcumine 546
–, – inorganic ions 692
–, – isomeric complexes 618
–, – metal complexes 441
–, – N-alkylamides 456
–, – S-arylidene barbiturates 401
–, – steroids 37
–, – 2-substituted benzoic acids 512
–, – therapeutic drugs 253
–, on alumina 37, 683
–, – cellulose 441, 683
–, – silica 149, 441, 683
–, overpressured 628
–, quantitative 253
–, retention behaviour in 683
–, reversed-phase 318
–, solvent composition in 249
TMS derivatives, of glucose 21
– –, LC of 96
Toxicological screening, by LC 81
– testing 603
Trace analysis 503
– –, by intermediate trapping 313
Trametes versicolor 389
Transition metal complexes, olefin-bonded 205
Trapping capacity 143
–, of trace materials 11
2-trimethylsiloxycarboxamides, by GC 387
Trimethylsilylethers, for enantiomers separation 387
Turmeric, by TLC 546

UV detection 600

Vacancy peaks 370
Viruses, elution of 69
Viscosity of gases, in GC 243
– – –, temperature effects on 243

Waste waters, chlorophenols in 323
Well-mixed model, of LC 355

XE-60-L-valine-(S)-amide 698

Chromatographia Vol. 18, 1984 Key Word Index

Acetonyl derivatives 309
Activity coefficients 134
Adsorption effects 579
Affinity chromatography 41, 389
Alcohols 294
Aldehydes and ketones 137
Alkanes 603
N-alkylamides of benzomorpholine-2-carboxylic acid 456
Alkylbenzenes 211
Alpine *Artemisiae* cultivation 560
Alumina 37, 542
Amines 396
Amino acids 62
Amino-bonded stationary phase 445
Aminocarb 305
Aniline derivatives 319
Anion chromatography 383
Anti-cancer drugs 5
Aqueous and aqueous alcohol eluents 15
Aromatic acid isomers 633
5-Arylidene barbiturates 401
Asymmetric synthesis 698
Azafluoranthenes 28

Benzoic acids 512
Binary mobile phases 579
Binary solutions 134
Biomass 445
Blood serum 253
Bonded phases 81
– phase structure 611
Boron enriched glass surface 41
Bumping of coating solution 520
n-Butyl esters of aromatic polycarboxylic acids 673
n-Butyl esters of C_2–C_{16} dicarboxylic acids 637

Calculation of limit 503
Calibration 23
Capillary GC 153, 190, 197, 313, 362, 387, 393, 424, 433, 489, 517, 560, 603
Capillary supercritical fluid chromatography 362
Carbon black 239
Carboxylic acids 309
Carrier gas 243
Cation exchangers 216
Cation exchanger in CE(III) form 704
Cellulose layers 18
CE(III) complexes 704
Characterisation 81
– methods 265
Chemical band narrowing 129
– excitation source 129
Chemically bonded phase 205
Chemiluminescence detector 129
Chiral bonded phase 459
– ketones 698
– stationary phase 287
Chlorophenols 323, 704
Chlorosecols 323
Chromatographic model 623
Chromatography 374, 503
– linear, non-ideal 427
Coal 190
– products 175
Co-injection 197
Column comparison 477
– diameter 477
Column liquid chromatography 15, 44, 62, 73, 81, 84, 90, 137, 175, 211, 216, 369, 396, 445, 459, 495, 499, 525, 574, 600, 633, 668, 677, 695, 701
– – –, reversed-phase 456
– switching 119
Compression of stationary phase 65
Configuration 294
Continuous development 249
Controlled porosity glass 41, 579
– porous glasses 389
Copper (II) complex 600
Correlation analysis 401
Correlations 499
Cross-linked stationary phase 11
– -linking of oligomers by γ-radiation 265
Curcumine 546

DABS-Cl 701
Dabsyl derivatives of amino acids 33
Dansyl derivative 129, 525
Data base 326
Deactivation of columns 362
Derivatization 260
– with salicylaldehyde 125
Dicarboxylic acid analysis 637
2,4-dinitrophenyl hydrazine-coated silica gel 137
3,5-dinitrobenzoic acid esters 18
Dioseraceae 621
Dispersive effect 103
Distillation 153
Dual retention mechanism 683
Dyestuffs 628
Dynamic equilibrium 15

Electric parameters 615
Electrochemical detection 125
Electronic filters 417

VOL. 18 1984

Elution curves 427
Enantiomeric olefins 119
– resolution 387
Enantioselective gas chromatography 698
Enthalpies of solution 663
Equilibria effects 369
Esterification in aqueous solution 637, 673
Evaporation without evacuation 520
Exchange capacity, determination 216
Exclusion chromatography 579
Exponentially modified Gaussian 374
Extraction 33

Fenitrothion 305
Fermentation solution 445
Film thickness 477
Flame ionisation detector 393
Flow rate stability 574
Fluorimetric determination 546
Forced-flow TLC 628
Fourier transform IR 175, 396
Free release static coating 642
Fructose-glucose mixtures 567
Fused silica capillary columns 542

Gas adsorption chromatography 28
Gas-liquid chromatography 305
Gas solubilities 663
GC 11, 31, 137, 183, 202, 205, 234, 243, 260, 294, 309, 367, 449, 477, 556, 615, 621, 637, 663, 673, 679
GC/MS 96, 297, 603
Glass capillary columns 642
– – GC 520
– – GC-MS 287
Glass wool in injector insert 517
Glyceraldehyde (dimeric form) 96
Glycolaldehyde (dimeric forms) 96
Grapefruit volatiles 153
Graphitised thermal carbon black 183, 297
Group contributions Δ logk' 99

Headspace analysis 560
Heat of adsorption 202
– – solution 202
High-speed separation 73
HPLC 87
HPTLC 253, 441
Hydrazine derivatives 125
Hydrogenation products 190
Hydrolysis products thereof 305
2,-Hydroxyalkanoic acids 387

ICP detector 437
Immobilised stationary phase 11
Inductive effect 103
Influence of temperature 243
Infrared spectrometry (IR or FTIR) 489
Inorganic compounds 326
– ions 692
Intermediate trapping 313
Inverse GC 611

Ion-exchange 445, 567
– – – chromatography 704
– – –, dynamic 369
Ion-exchangers 437
Ion-pair 15, 87, 512
– -pairing systems 99
Isomers of perhydroanthracene and perhydrophenanthrene 297

LC 125, 326, 556
–, continuous 567
Ligand exchange 119
Limit of detection 503
Linearity 393
Lipophilic character 18, 318
Liqueur control 560
Liquid chromatography detectors 417
– column chromatography 69, 550
– – – (reversed phase) 103
– -solid chromatography 145
Low capacity ion-exchange resin 633
Low energy mass spectra 297

Macroporous silica 69
Make-up gas 393
Mass overload 623
– transfer terms 367
Matrix effect in splitless injection 517
Medium-polar and polar stationary phases 642
Membrane phase separator 5
Metal complexes 205, 441
– ions 369
7-methyl juglone 621
Michaelis-Menten function 23
Microbore columns 73, 574
– packed columns 633
Microcolumn LC 239, 437
Microcomputer 211, 326
Microparticulate packing 62
Microsampling techniques 560
Middle distillate fuel 542
Miniaturised HPLC 5
Mixed eluents 668
– ligand complexes 618
Mobile phase 353
Molecular parameters 90
– shape recognition 495
– structure correlations 683

1,4-naphthoquinones 621
New reversed stationary LC-phases 265
Noise suppression 417
Normal and reversed phase 44
Normal paraffin films 611
Nuclear magnetic resonance 31

On-column injection 234
Open-tubular capillary columns 679
– – – columns 234, 367, 477
Opium alkaloids 87
Organic compounds 437
Organic peroxidation 216
Overpressured TLC 628

Packed columns 11
3 μm packing 695
PAH's 103, 183, 190, 211, 495, 677

Paper chromatography 33, 134, 618
Parabens and their dissolution 260
Peak area summation 679
– compression 525
– identification 449
– shape and width 374
Performance 73, 574
Pharmaceutical dosage forms 260
Phase transition 611
Phenols 396
Pheromones 698
Physico-chemical relationships 615
Platinum complexes 119
Plumbagin 621
Polar compounds 175
– solutions 663
Pollution 137
Polyamines 525
Polycyclic aromatic compounds 239, 603
– nitrogen-containing compounds 28
Polyphenyl bonded phases 677
Polymer coating 383
Polysiloxane stationary phase 202
Polystyrene packings 424
Polyvinyl alcohol column 550
Post column extraction detection 5
Pre-column derivatisation 424
Preferential sorption of eluents 668
Preparative column liquid chromatography 65, 119
– GC 119
– LC 623
Pressure effects 668
Proteins 69
– affinity to vanillin 41

Quantitation 253
Quantitative analysis 574
– determination of L-alanine 701

Racemate resolution 459
Residues 556
Resolution 295, 374
Retention and carbon content 677
– correlation 44
– data 456, 499
– index 449, 615
– mechanism 353
– prediction 90, 211
– relationships 37
– thermodynamics 353
Reversed phase 62, 84, 87, 90, 512, 695
– – chromatography 353, 550
– – -HPLC 99
– – -HPLC and GC 611
– – -HPTLC 99

Sample capacity 477
Segmented-flow open-tubular reactors 5
Semi-microbore columns 695
Separation of fungal proteins 389
Sep-pak extraction 323
Serum 129, 433
Shielding of silanol groups 265
Silica 44
– -based amine column 383
– gel 65, 149
Size exclusion chromatography 550
Solubility parameter theory 683
Solvent composition 249
– effects 197
– extraction 153
– refined coal 603
– selection 145
– trapping 433
Soman 433
Spectrometric identification 28
Splitless injection 433
Static coating 520
– distribution coefficients 33
Stationary phase evaluation 84
Statistical moments 427
Steric exclusion adsorption mechanism 579
Steroids 37, 145
Stopped-flow operation 234
Structure-activity relationships 456
– -retention relationships 183
– – – study 615
Substituted benzenes 90
– benzene derivatives 499
Subtraction 679
Sugars 600
Sulfoethyl (SE) cellulose 692
Sulfuric acid – organic solvent media 692
Supercritical fluid chromatography (SFC) 489, 542
Surface chemical modification 69
– deactivation 265

Tailed picket-fence porphyrins 65
Terpenes 31
Tetrakis (4-methylphenyl)porphyrin 441
Tetramethrin 556
Therapeutic drugs 253
Thermal desorption 313
Thermally modified glass support 41
Thermodynamic relationships 449
Thiamine compounds 424
Thick-film columns 367
Thio-amino acids 287
TLC 18, 23, 37, 145, 149, 249, 401, 512, 546, 618, 683, 692
TLC and HPLC 33
TLC reversed-phase 318, 456
TMS-derivatives 96
Toxicological screening 81
Trace analysis 313
Trametes versicolor 389
Trapping 11
1,2,4-triazoles 149
Trimethylsilylethers 387
Tryglycine sulphate 701
Turmeric root powder 546

UV and fluorescence detection 424
UV detection 600

Variation of film thickness 367
Viruses 69
Viscosity 243

Waste water 323

VOL. 18 1984

OL.
18
984